

- Notes :-**
- 1) All questions are compulsory.
 - 2) Use of calculator is not allowed.
 - 3) Digits to the right side indicated full marks of questions.

1. A) Choose the correct alternate and rewrite the following sentences.

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- 1) An algebraic expression containing two terms is called a
A) Monomial B) Binomial C) Polynomial D) Trinomial
- 2) $(5a)^2 \times (5a)^{-2} = ?$
A) $25a^2$ B) 1 C) 0 D) $5a^4$
- 3) The HCF of the number 14 and 28, is
A) 14 B) 15 C) 16 D) 18
- 4) $(+8) - (+3) = \dots\dots\dots$
A) 11 B) 24 C) 4 D) 5
- 5) The sum of the measures of two complementary angles is
A) 180° B) 90° C) 45° D) 60°

B) Match the pairs.

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"A" Group

- 1) a^0
- 2) $\frac{5}{2} \times \frac{1}{3}$

"B" Group

- a) $\frac{5}{6}$
- b) 1
- c) 2

C) State whether given sentences are true or false.

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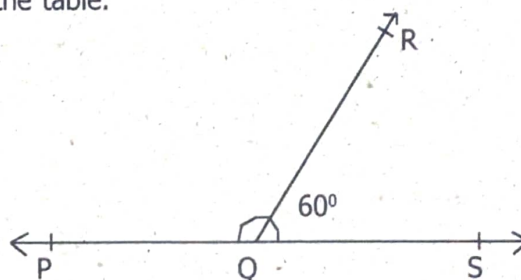
- 1) Two angles with equal measures are congruent to each other.
- 2) The quotient of two positive integers is a positive number.
- 3) $5^3 = 127$

2. Solve the following sub questions. (Any Five)

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- 1) Add $1\frac{3}{5} + 2\frac{2}{3}$
- 2) Multiply $16xy \times 18xy$
- 3) Observe the figure and complete the table.

- 1) $m\angle PQR = \dots\dots\dots$
- 2) $m\angle PQR + m\angle RQS = \dots\dots\dots$



- 4) Find the HCF 25 and 40.
- 5) Find the measure of the complement of an angle of measure 40°

- 6) Complete the following activity to write simplify.

$$(3^4)^{-2}$$

$$= 3^4 \times \boxed{}$$

$$= 3^{\boxed{}}$$

- 7) Find the value of $(-\frac{4}{5})^3 \div (-\frac{4}{5})^2$

3. Solve the following sub-questions. (Any Three)

9

- 1) Find the HCF of 275 and 525 by division method.
- 2) Find the square root 625.
- 3) $\angle A$ and $\angle B$ are supplements of each other. If $m\angle B = (x + 20)^\circ$, then find $m\angle A$.
- 4) Simplify the following expressions a number in each bracket.

$$50 \times 5 \div 2 + 24$$

$$= 250 \div 2 + 24$$

$$= \boxed{} + 24$$

$$= \boxed{}$$

- 5) Add.

$$17a^2b^2 + 16c ; 28c - 28a^2b^2$$

4. Solve the following sub-questions. (Any Three)

9

- 1) Write three division of integers such that the fractional form of each will be $-\frac{5}{7}$.
- 2) Draw triangles with the measures given below.
In $\triangle NTS$, $m\angle T = 40^\circ$, $\ell(NT) = \ell(TS) = 5\text{cm}$.
- 3) There are four polling booths for a certain election. The numbers of men and women who cast their vote at each booth is given in the table below. Draw a joint bar graph for this data.

Polling Booths	Navodaya Vidyalaya	Vidyaniketan school	City High School	Eklavaya School
Women	500	520	680	800
Men	440	640	760	600

- 4) Construct $\triangle PQR$ in which $m\angle p = 45^\circ$, $m\angle Q = 70^\circ$ and $\ell(PQ) = 4.9\text{ cm}$.
- 5) $(a + 30)^\circ$ and $(2a)^\circ$ are the measure of two supplementary angles. what is the measures of each angle ?

5. Solve any three of the following sub-questions. (Any Three)

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- 1) The length of a rectangle is 1cm more than twice its breadth. If the perimeter of the rectangle is 50cm, find its length.
- 2) Find the HCF of 275 and 525 by division method.
- 3) If $m\angle A = 70^\circ$, what is the measure of the supplement of the complement of $\angle A$?
- 4) Shubhangi has twice as many 20 rupee notes as she has 50 - Rupee notes. Altogether she has Rs. 2700. How Many 50 rupee notes does she have ?